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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,805	06/21/2001	James William Casper	OC527	5082

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PPG INDUSTRIES INC
INTELLECTUAL PROPERTY DEPT
ONE PPG PLACE
PITTSBURGH, PA 15272

EXAMINER

BLANTON, REBECCA A

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 05/15/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/868,805

Applicant(s)

CASPER, JAMES WILLIAM

Examiner

Rebecca A. Blanton

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-21 and 24 is/are rejected.
- 7) ☒ Claim(s) 7, 19, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8-10, and 13-15, are rejected under 35 U.S.C. 102(b) as being anticipated by Kubitza et al. (U.S. 5,075,370).

Regarding claims 1, Kubitza et al. disclose a two-component coating composition, which contains a polymer component with a pigment dispersion (abstract). The polymer disclosed by Kubitza et al. includes hydrophilic groups, such as carboxylic acid groups, and hydroxyl groups as functional groups (column 2 lines 35-51). Kubitza et al. teach that the polymer is in an organic solvent following polymerization (column 4 lines 25-33). Additionally, Kubitza et al. teach that the coating composition contains organic solvents (column 9 lines 66-68). The reference further teaches that a pigment dispersion including dispersing agents can be included in the coating composition (column 6 lines 53-58). The reference teaches that the pigment dispersion may be added to the polymer composition in solution comprising water, the pigments, and pigment dispersion aids (column 9 lines 16-20).

Regarding claims 2-4, Kubitza et al. disclose the presence of hydroxyl groups as functional groups on the polymer (column 2 lines 35-36). The hydroxyl groups have a hydroxyl value of 16.5 to 264 (column 2 line 43).

Referring to claims 5-6, Kubitza et al. teach that the hydrophilic groups are carboxylate groups with an acid value of 0-150 (column 2 lines 44-46).

Regarding claims 8-10, Kubitza et al. disclose that the polymers are vinyl additional polymers made up of vinyl addition monomers (column 3 lines 28-68 and column 4 lines 1-24).

Referring to claims 13-14, Kubitza et al. teach that the molecular weight of the polymer, as determined by gel permeation chromatography, is 1,000-10,000 (column 2 lines 40-42).

Regarding claim 15, the reference teaches that the acid value is between 0-150 (column 2 lines 44-46).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 11-12, 16-18, 20-21, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubitza et al. (U.S. 5,075,370) in view of Fenn et al. (U.S. 5,820,925).

Kubitza et al. disclose a two-component coating composition that contains an acrylic addition polymer, as described above. However, Kubitza et al. do not disclose the theoretical glass transition temperature. Fenn et al. disclose a paint pack that comprises a polymer together with pigments in an organic solvent (column 1 lines 29-32). Fenn et al. further disclose that the pigmented components may comprise dispersing agents (column 2 lines 62-65). Additionally, Fenn et al. teach that the polymer has hydroxyl functional groups (abstract). Fenn et al. disclose that the polymer may also include hydrophilic groups, such as carboxylic acid groups (column 6 lines 33-35). Fenn et al. teach that the polymer is an acrylic addition polymer has a theoretical glass transition temperature of 0° - 80°C (column 6 lines 60-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made, in the absence of a teaching of Kubitza et al., to use an acrylic addition polymer with a theoretical glass transition temperature of 0° - 80°C in the coating composition taught by Kubitza et al., in view of the teachings of Fenn et al. that an acrylic addition polymer used in a pigmented coating composition is preferably 0° - 80°C.

Referring to claims 16-18, and 20-21, Kubitza et al. disclose that polyisocyanate is added to the polymer dispersion (abstract). In column 9 lines 50-52, Kubitza et al. disclose that the polyisocyanate is diluted with an organic solvent.

Regarding claims 16-18, and 20-21, Kubitza et al. disclose a two-component paint composition, however, the reference does not teach forming a paint pack with the composition. Fenn et al. teach that the components comprising a functional polymer with any pigments in an organic solvent combined together are a paint pack (column 1 lines 30-35). Additionally, Fenn et al. teach that the components are kept in a paint pack to prevent the crosslinking reaction from occurring while on the shelf, thus reducing the shelf-life (column 1 lines 36-39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the coating taught by Kubitza et al. into a paint pack to prevent premature hardening of the coating, in view of the teachings of Fenn et al. to store these components as a paint pack.

Regarding claim 24, the product of claim 24 is that of rejected claim 21. Kubitza et al. do not specifically disclose a coated article obtained by coating the substrate with the waterborne coating composition. However, Fenn et al. disclose applying the coating composition, containing pigment dispersion in polymer dispersion, to the surface of a motor vehicle (column 8 lines 67-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made, in the absence of a teaching of Kubitza et al., to apply the pigment containing polymer dispersion coating of Kubitza et al., to an automobile surface, in view of the teachings of Fenn et al. to apply a pigment containing polymer dispersion coating to a vehicle.

Allowable Subject Matter

Claims 7, 19, and 22-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Referring to claim 7, the applicant's limitation of producing solventborne paint pack, which can be made into a waterborne, coating composition, which comprises;

- i) a solution in an organic solvent of polymer having functional groups and hydrophilic groups; and
- ii) a waterborne pigment dispersion comprising pigment dispersed in water in the presence of a pigment dispersant, the aqueous pigment dispersion itself being in dispersion in said solution of organic solvent;

where the hydrophilic groups are amine groups and the polymer has an amine value of 20 to 250 distinguishes over Kubitza et al. and Fenn et al. because neither reference teaches the presence of amine groups as the hydrophilic group in the polymer coating composition.

None of the prior art of record teaches or makes obvious the applicant's claimed invention of producing a solventborne paint pack, which can be made into a waterborne, coating composition, which comprises;

- i) a solution in an organic solvent of polymer having functional groups and hydrophilic groups; and
- ii) a waterborne pigment dispersion comprising pigment dispersed in water in the presence of a pigment dispersant, the aqueous pigment dispersion itself being in dispersion in said solution of organic solvent;

where the hydrophilic groups are amine groups and the polymer has an amine value of 20 to 250.

Regarding claims 19 and 22, the applicant's limitation that a solventborne paint pack produced by:

- i) forming a solution of polymer in an organic solvent; and
- ii) dispersing a waterborne pigment dispersion in the polymer solution;
- and further
- iii) adding a crosslinker to the solventborne paint pack; followed by
- iv) emulsifying the solventborne paint pack in an aqueous medium

distinguishes over Kubitza et al. and Fenn et al. because neither reference teaches further emulsifying the paint pack in an aqueous medium.

None of the prior art of record teaches or makes obvious the applicant's claimed invention of a solventborne paint pack produced by:

- i) forming a solution of polymer in an organic solvent; and
- ii) dispersing a waterborne pigment dispersion in the polymer solution;
- and further
- iii) adding a crosslinker to the solventborne paint pack; followed by
- iv) emulsifying the solventborne paint pack in an aqueous medium.

Claim 23 is allowable as being dependant upon allowable claim 22.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 1762


U.S. 6,309,707 to Mayer et al.: Mayer et al. discloses a coating composition that contains an acrylate polymer dispersed in an organic solvent, a nonblocked polyisocyanate, and water.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rebecca A. Blanton whose telephone number is 703-605-4295. The examiner can normally be reached on M - F (7:30am - 3:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on 703-308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

rab *RAB*
May 13, 2002


MICHAEL BARR
PRIMARY EXAMINER